

described and illustrated by myself in 1874 ('Annals,' vol. xiv. pp. 456 and 457, pl. xxi. fig. 27) was the same as that described and illustrated by Mr. R. Hope, F.Z.S., in February last ('Annals,' vol. iii. pl. vi. A, 5) under the name of "*Microciona spinarcus*:" nor should I have perceived my error, had not Mr. Hope, in March last, kindly sent me preparations of yet another new species from Hastings, which, from the form of *its* tricurvate, we both recognized to be totally different from that of *M. spinarcus*; at the same time it seems to me to be absolutely *identical* with my figure of 1874 (*l. c.*), inasmuch as the arms of the latter are depressed almost to straightness, while in the former they are bent much upwards, bow-like (see Mr. Hope's figure, *l. c.*).

Mr. Hope's second new species of *Microciona*, viz. that in which the arms of the tricurvate are so much depressed, will be described and illustrated by him hereafter; meanwhile this statement will be sufficient to correct my own "error," and serve to record the existence of an unnamed and undescribed British species of *Microciona* chiefly characterized by the form of tricurvate above mentioned.

August 5, 1889.

On the Marine Acarina of the Shores of France.

By M. TROUËSSART.

Since my previous note on this subject communicated to the Academy on the 5th November, 1888, I have got together fresh materials which enable me to give more complete information with regard to the Acarological fauna of our shores. Besides my personal investigations I have received important contributions from MM. Chevreux and Le Sénéchal (of Croisic and Caen). Mr. G. S. Brady (of Sunderland) has lent me the types of the species described by him from the English coasts. Lastly, Dr. Lohmann (of Kiel), who has just published an excellent monograph of the Marine Acarina of the Baltic Sea*, has taken the trouble to compare my types with his.

The only truly marine Acarina are the Halacaridæ, which must form a very distinct family, and not a mere subfamily of the Trombidiidæ. In this latter family the last joint of the palpi is always palpiform, and it is the *penultimate* that acquires the form of a *terminal claw*; in all the Halacaridæ, on the contrary, it is the *last joint* of the palpi which constitutes the terminal claw, and there is no trace of the palpiform joint. This fundamental difference seems to me to justify the elevation of the Halacaridæ to the rank of a family, as proposed by Murray in 1875.

The Halacaridæ live in the sea from the littoral zone down to the depth of 30-50 fathoms. They walk and climb, rather than swim, upon the bottom, the rocks, the Algæ, and the fixed or slow-moving

* 'Zoologische Jahrbücher,' Bd. iv. (1889) p. 269.

marine animals of which they are commensals. Their food appears to be very varied, according to age and locality. It is the colour of the food which fills their stomach and marks its outlines, which, when seen by translucence, gives the coloration remarked in several species, for the integuments are transparent and of a nearly colourless testaceous-yellow tint. If my observations are correct, *Halacarus spinifer*, Lohm., the largest and commonest species of our coasts, is exclusively carnivorous in its youth; the larvæ and nymphs are of a coral-red colour, identical with that of the ova of Copepods which abound in the region inhabited by them; the adult, on the contrary, is of a darker or lighter brown, and we find in its stomach numerous tests of Diatoms, indicating at least a partially vegetable regime. Like many other Acarina, therefore, these animals are parasites in their youth, and become simple commensals when adult.

The Halacaridæ live well in brackish water, and even resist fresh water for a long time. They can be kept alive for two or three days in an aquarium of the latter kind, while Copepoda die there rapidly. In the canal from Caen to the sea, the water of which has scarcely more than 2 gr. of salt in the litre, M. Le Sénéchal has found *Halacarus spinifer* upon the Hydroids which have become acclimatized there.

But it is in the Laminarian zone, or, more correctly, in the Coral-line zone, and especially upon *Corallina officinalis*, that these animals abound, as is shown by the numerous dredgings which M. E. Chevreux has been good enough to make specially at my request upon the coast of the Croisic. The Halacaridæ occur in great numbers attached by their hooked feet to the delicate fronds of the Corallines. In M. Chevreux's flasks these animals are mingled with hundreds of small Crustaceans (Copepods, Amphipods, and Ostracods), with Pycnogonidæ and specimens of *Amphitrua squammata*, collected at the same time. These results agree with those obtained by Dr. Lohmann in the Baltic; of the fifteen species collected by him two occur in the zone of red seaweeds (Corallines) at depths of 5-10 fathoms.

The number of species from the French coasts which I shall make known in a memoir now in course of preparation is comparatively considerable. My collection contains seventeen species, while the English naturalists have only recorded ten, and Dr. Lohmann fifteen. The individuals from the Ocean are superior in size to those of the Baltic, although several species are identical, such as *Rhombognathus* (*Aletes*, Lohm.) *notops*, *R. Seahami*, *Halacarus spinifer* (= *H. ctenopus* of my previous note), *H. Murrayi* (= *H. inermis*), *H. Fabricii*, *H. rhodostigma*, and *Leptognathus falcatus*, which inhabit our Atlantic shores.

Two generic types (*Leptopsalis* and *Copidognathus*) characterized in my former note occur in the Ocean and are wanting in the Baltic. A new species of the former genus (*Leptopsalis Chevreuxi*) will enable this type to be better characterized. It occurs at the Croisic. This applies also to *Pachygnathus sculptus*, Brady, a species which is very interesting as having been dredged at a depth of 35 fathoms.

It will form a separate genus very distinct from *Rhombognathus*, to be characterized as follows:—*Simognathus*, g. n. Maxillary palpi dorsal, arranged as in *Leptognathus*; rostrum short and broad. Type *Pachygnathus sculptus*, Brady. This genus is to *Rhombognathus* what *Leptognathus* is to *Halacarus*.

Another type characterized by Dr. Lohmann, although not found in the Baltic, is the genus *Agauæ*. It is a southern type which makes its appearance first in the Bay of Biscay (*Agauæ brevipalpus*, sp. n., from the oyster-beds of Arcachon). In the Mediterranean this type seems to replace the genus *Halacarus*, which there has only two species (*H. oculatus* and *H. levipes*, sp. n.), while the genus *Agauæ* has three species, namely *A. hirsuta*, sp. n., a robust type of considerable size (0.75 millim.), *A. microrhyncha*, sp. n., and *A. brevipalpus*, which is identical with the species from Arcachon. These three species occur upon the Corsican moss (*Sphaerococcus helminthocorton*) and the Corallines which live in the same localities. — *Comptes Rendus*, June 3, 1889, p. 1178.

On a new Species of Chat.

Dehesa de Cologan,
Puerto Orotava,
Tenerife,
25th July, 1889.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,—

I enclose you the description of a distinctly new species of Chat which I discovered in the island of Fuerteventura in March 1888. This year I spent some weeks in the island and procured several specimens, also its nest and eggs; these also are quite distinct, as are the breeding-habits of the bird.

Yours faithfully,

E. G. MEADE-WALDO.

Pratincola dacotice, sp. nov.

P. ♂. Supra brunneo-nigra, fusco-limbata; cauda brunnea, rectricibus extimis albo-limbatis; loris et capitis lateribus nigris, linea supraoculari et postoculari alba; gula et thorace albis; pectoris cinctura pallide castanea, abdomine albedo: hypochondriis et erisso albis, remigibus brunneis; secundariis majoribus interioribus albis, reliquis albo-marginatis, rostro et pedibus nigris.

♀. Supra brunnea; gula, thorace et abdomine albidis, cinctura castanea pectoris pæne obsoleta, aliter mari similis.

Long. tot. 4.9, alæ 2.5, caud. 2.3, rostr. .62, tars. .9.

Hab. Ins. Fuerteventura, Mauritanicè Dacos.